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Attorney Docket No. 108298705US
Disclosure No. 02-1607.00/US**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
Form PTO-1449 (Modified)
(Use several sheets if necessary)**COMPLETE IF KNOWN**

Sheet	1	of	1		
Application Number				10/665,219	
Confirmation Number				6284	
Filing Date				September 17, 2003	
First Named Inventor				Whonchee Lee	
Group Art Unit				3723	
Examiner Name				Dung V. Nguyen	
Attorney Docket No.				108298705US	

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.	U.S. Patent or Application		Name of Patentee or Inventor of Cited Document	Date of Publication or Filing Date of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		NUMBER	Kind Code (if known)			
dvw		5,624,300✓		Kishii et al.	04/29/1997	
↓		6,689,258✓	B1	Lansford et al.	02/10/2004	
↓		6,776,693✓	B2	Duboust et al.	08/17/2004	

EXAMINER

Dung van Nguyen

DATE CONSIDERED

12-1-2004

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DVN	**	U.S. Application No. 09/651,779 ✓ (Atty. Docket No. 10829.8515US)		Moore	Filed 08/30/2000	
	**	U.S. Application No. 09/651,808 ✓		Chopra et al.	Filed 08/30/2000	
	**	U.S. Application No. 09/653,392 ✓		Chopra et al.	Filed 08/31/2000	
	**	U.S. Application No. 09/653,411 ✓		Lee et al.	Filed 08/31/2000	
	**	U.S. Application No. 10/230,463 ✓ (Atty. Docket No. 10829.8672US)		Lee et al.	Filed 08/29/2002	
	**	U.S. Application No. 10/230,602 ✓ (Atty. Docket No. 10829.8674US)		Chopra	Filed 08/29/2002	
	**	U.S. Application No. 10/230,628 ✓ (Atty. Docket No. 10829.8673US)		Lee et al.	Filed 08/29/2002	
		2001/0025976 ✓	A1	Lee	10/04/2001	
		2001/0036746 ✓	A1	Sato et al.	11/01/2001	
		2002/0025763 ✓	A1	Lee et al.	02/28/2002	
		2002/0025760 ✓	A1	Lee et al.	02/28/2002	
		2002/0025759 ✓	A1	Lee et al.	02/28/2002	
		2002/0052126	A1	Lee et al.	05/02/2002	
		2002/0070126 ✓	A1	Sato et al.	06/13/2002	
		2003/0054729 ✓	A1	Lee et al.	03/20/2003	
		2003/0109198 ✓	A1	Lee et al.	06/12/2003	

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DVN		2003/0129927 ✓	A1	Lee et al.	07/10/2003	
		2003/0226764 ✓	A1	Moore et al.	12/11/2003	
		2,315,695 ✓		Faust	04/06/1943	
		2,516,105 ✓		der Mateosian	07/25/1950	
		3,334,210 ✓		Williams et al.	08/01/1967	
		4,839,005 ✓		Katsumoto et al.	06/13/1989	
		5,244,534 ✓		Yu et al.	09/14/1993	
		5,300,155 ✓		Sandhu et al.	04/05/1994	
		5,344,539 ✓		Shinogi et al.	09/06/1994	
		5,567,300 ✓		Datta et al.	10/22/1996	
		5,575,885 ✓		Hirabayashi et al.	11/19/1996	
		5,618,381 ✓		Doan et al.	04/08/1997	
		5,676,587 ✓		Landers et al.	10/14/1997	
		5,681,423 ✓		Sandhu et al.	10/28/1997	
		5,780,358 ✓		Zhou et al.	07/14/1998	
		5,807,165 ✓		Uzoh et al.	09/15/1998	
		5,840,629 ✓		Carpio	11/24/1998	
		5,846,398 ✓		Carpio	12/08/1998	
		5,863,307 ✓		Zhou et al.	01/26/1999	
		5,897,375 ✓		Watts et al.	04/27/1999	
		5,911,619 ✓		Uzoh et al.	06/15/1999	
		5,930,699 ✓		Bhatia	07/27/1999	
✓		5,934,980 ✓		Koos et al.	08/10/1999	

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DVJ		5,952,687 ✓		Kawakubo et al.	09/14/1999	
		5,954,975 ✓		Cadien et al.	09/21/1999	
		5,954,997 ✓		Kaufman et al.	09/21/1999	
		5,972,792 ✓		Hudson	10/26/1999	
		5,993,637 ✓		Hisamatsu et al.	11/30/1999	
		6,001,730 ✓		Farkas et al.	12/14/1999	
		6,010,964 ✓		Glass	01/04/2000	
		6,024,856 ✓		Haydu et al.	02/15/2000	
		6,033,953 ✓		Aoki et al.	03/07/2000	
		6,039,633 ✓		Chopra	03/21/2000	
		6,046,099 ✓		Cadien et al.	04/04/2000	
		6,051,496 ✓		Jang	04/18/2000	
		6,060,386 ✓		Givens	05/09/2000	
		6,060,395 ✓		Skrovan et al.	05/09/2000	
		6,063,306 ✓		Kaufman et al.	05/16/2000	
		6,066,030 ✓		Uzoh	05/23/2000	
		6,066,559 ✓		Gonzalez et al.	05/23/2000	
		6,068,787 ✓		Grumbine et al.	05/30/2000	
		6,083,840 ✓		Mravic et al.	07/04/2000	
		6,100,197 ✓		Hasegawa	08/08/2000	
		6,103,096 ✓		Datta et al.	08/15/2000	
		6,103,628 ✓		Talieh	08/15/2000	
		6,115,233 ✓		Seliskar et al.	09/05/2000	

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DNW		6,117,781✓		Lukanc et al.	09/12/2000	
		6,121,152✓		Adams et al.	09/19/2000	
		6,132,586✓		Adams et al.	10/17/2000	
		6,143,155✓		Adams et al.	11/07/2000	
		6,171,467✓	B1	Weihs et al.	01/09/2001	
		6,174,425✓	B1	Simpson et al.	01/16/2001	
		6,176,992✓	B1	Talieh	01/23/2001	
		6,180,947✓	B1	Stickel et al.	01/30/2001	
		6,187,651✓	B1	Oh	02/13/2001	
		6,196,899✓	B1	Chopra et al.	03/06/2001	
		6,197,182✓	B1	Kaufman et al.	03/06/2001	
		6,206,756✓	B1	Chopra et al.	03/27/2001	
		6,218,309✓	B1	Miller et al.	04/17/2001	
		6,250,994✓	B1	Chopra et al.	06/26/2001	
		6,259,128✓	B1	Adler et al.	07/10/2001	
		6,273,786✓	B1	Chopra et al.	08/14/2001	
		6,276,996✓	B1	Chopra	08/21/2001	
		6,280,581✓	B1	Cheng	08/28/2001	
		6,287,974✓	B1	Miller	09/11/2001	
		6,299,741✓	B1	Sun et al.	10/09/2001	
		6,303,956✓	B1	Sandhu et al.	10/16/2001	
		6,313,038✓	B1	Chopra et al.	11/06/2001	
		6,328,632✓	B1	Chopra	12/11/2001	
		6,368,190✓	B1	Easter et al.	04/09/2002	


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DVN		6,379,223/	B1	Sun et al.	04/30/2002	
DVN		6,455,370/	B1	Lane	09/24/2002	


FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No.	Foreign Patent or Application			Name of Patentee or Applicant of Cited Document	Date of Publication or Filing Date of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Office	NUMBER	Kind Code (if known)				
DVN	**	JP	2001077117/	A2, A3	Sony Corp.	03/23/2001		
	**	EP/	0459397	A1	Kabushiki Kaisha Toshiba	12/04/1991		
	**	WO/	02/064314	A1	Speedfam-IPEC Corporation	08/22/2002		
	**	WO/	00/26443	A2, A3	Nutool, Inc.	05/11/2000		
	**	WO/	00/28586	A2, A3	Micron Technology, Inc.	05/18/2000		
	**	WO/	00/32356	A1	Nutool, Inc.	06/08/2000		
	**	WO/	00/59008	A2, A3	Nutool, Inc	10/05/2000		
	**	WO/	00/59682	A1	Nutool, Inc	10/12/2000		

OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume issue number(s), publisher, city and/or country where published.	T
DVN	**	ABOAF, J.A. and R.W. BROADIE, IBM Technical Disclosure Bulletin, Rounding of Square-Shape Holes in Silicon Wafers, Vol. 19, No. 8, p. 3042, January 1977, XP-002235690, NN 77013042. /	
	**	ATMI, Inc., adapted from a presentation at the Semicon West '99 Low Dielectric Materials Technology Conference, San Francisco, California, July 12, 1999, pp. 13-25. /	
	**	BASSOUS, E., IBM Technical Disclosure Bulletin, Low Temperature Methods for Rounding Silicon Nozzles, Vol. 20, No. 2, July 1977, pp. 810-811, XP-002235692, NN 7707810. /	
	**	BERNHARDT, A.F., CONTOLINI, R.J., MAYER, S.T., "Electrochemical Planarization for Multi-Level Metallization of Microcircuitry," <i>CircuiTree Journal</i> , Vol. 8, No. 10, pp. 38, 40, 42, 44, 46, and 48, Oct. 1995. /	

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dvw	**	D'HEURLE, F.M. and K.C. PARK, IBM Technical Disclosure Bulletin, Electrolytic Process for Metal Pattern Generation, Vol. 17, No. 1, pp. 271-272, June 1974, XP-002235691, NN 7406271. ✓	
	**	FRANKENTHAL, R.P. and EATON, D.H., "Electroetching of Platinum in the Titanium-Platinum-Gold Metallization on Silicon Integrated Circuits", <i>Journal of The Electrochemical Society</i> , Vol. 123, No. 5, pp. 703-706, May 1976. ✓	
	**	HUANG, C.S. et al., "A Novel UV Baking Process to Improve DUV Photoresist Hardness," pp. 135-138, Proceedings of the 1999 International Symposium on VLSI Technology, Systems, and Applications: Proceedings of Technical Papers: June 8-10, 1999, Taipei, Taiwan, Institute of Electrical and Electronics Engineers, Inc., September 1999. ✓	
	**	JUCHNIEWICZ, R. et al. "Influence of Pulsed Current of Platinised Titanium and Tantalum Anode Durability," International Congress on Metallic Corrosion, Proceedings - Volume 3, pp. 449-453, Toronto, June 3-7, 1984.	
	**	KONDO, S. et al., "Abrasive-Free Polishing for Copper Damascene Interconnection," <i>Journal of the Electrochemical Society</i> , Vol. 147, No. 10, pp. 3907-3913, The Electrochemical Society, Inc., Pennington, New Jersey, 2000. ✓	
	**	McGraw-Hill, <i>Concise Encyclopedia of Science & Technology</i> , Sybil P. Parker, Editor in Chief, Fourth Edition, p. 367, McGraw-Hill, New York, 1998. ✓	
	**	Micro Photonics, Inc., "CSM Nano Hardness Tester," 6 pages, retrieved from the Internet on July 29, 2002, < http://www.microphotonics.com/nht.html >.	
	**	Micro Photonics, Inc., CSM Application Bulletin, "Low-load Micro Scratch Tester (MST) for characterisation of thin polymer films," 3 pages, retrieved from the Internet on July 25, 2002, < http://www.microphotonics.com/mstABpoly.html >. ✓	
	**	PhysicsWorld, "Hard Materials", excerpt of "Superhard Superlattices," 1 page, January 1998, S. Barnett and A. Madan, retrieved from the Internet on July 29, 2002, < http://physicsweb.org/box/world/11/1/11/world-11-1-11-1 >. ✓	

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